8: Cadzow--10 (1919) 1920 Copper Eskimo
226, 227

[AW: For Cadzow's description of the manufacture of a gaff-hook and accompanying illustration, see categories 325 and 391.]

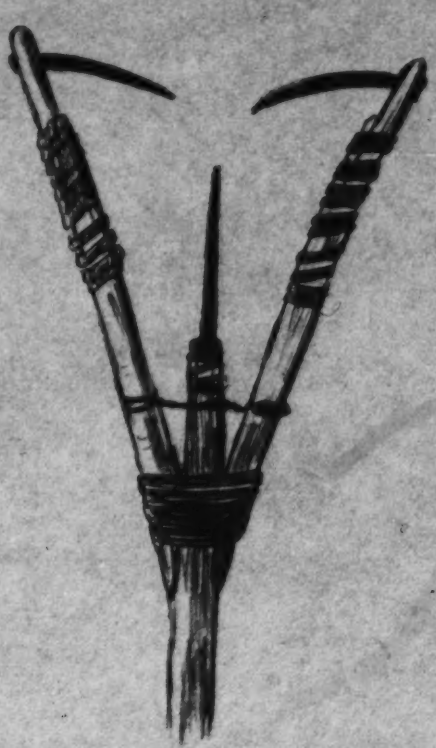

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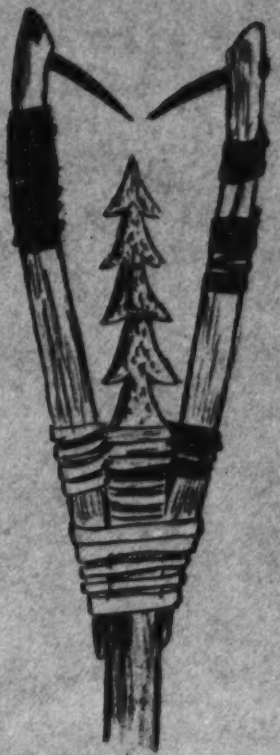
PLATE II



b

8: Cadzow--10 (1919) 1920 Copper Eskimo-2
116, 227

[AW: Following are the legends for Plate II]
SPEAR-HOOKS
a, Three-pronged spear-hook with copper barbs and center prong. b, Spear-hook with copper barbs and center prong of notched antler.

8: Cadzow--11-12 (1919) 1920 Copper Eskimo
116, 227

"Spear-hook.--Fish are frequently taken with a three-pronged spear-hook (pl. II), used in much the same manner as the gaff, except that the fish is transfixed on the spear with a forward thrust on the shaft. The outer prongs of the spear are made of wood, to which tips of antler are lashed, with inward- and backward-pointing barbs of native copper driven through them. The outer prongs spread apart on striking the fish, and the barbs come together in its sides or meet beneath the belly, thus holding the fish securely to the center prong, which is made of copper or of antler.

This spear is used when the fisherman wishes to be certain of his catch, for, in using the spear-hook he is assured that the fish will not escape when once transfixed, as often happens when striking a lively fish with the gaff.

(a) Length of outer prongs, 14 in.
Barbs, 2 in.
Length of center prong, 6 in. [12]

(b) Length of outer prongs, 12 in.
Barbs, 3 in.
Length of center prong, 4 in."

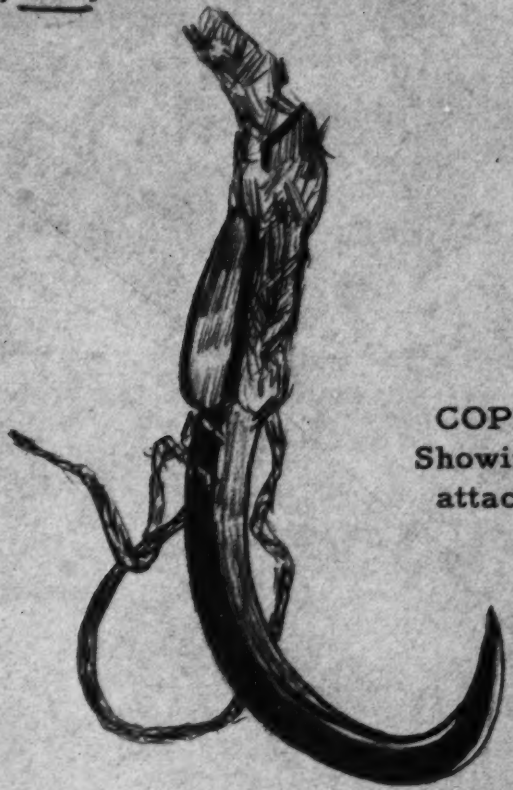


PLATE III
COPPER FISH-HOOK
Showing a portion of the attached sinew line.

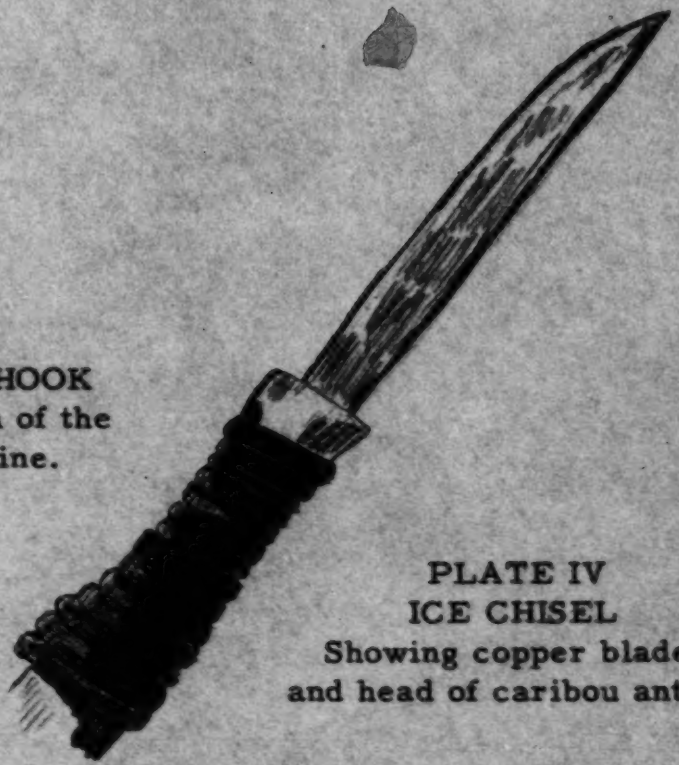


PLATE IV
ICE CHISEL
Showing copper blade and head of caribou antler.

8: Cadzow--12 (1919) 1920 Copper Eskimo
116, 227

"Fish-hook.--Pl. III represents another type of fishing-tackle used by the Copper Eskimo for fishing through the ice in winter. A piece of dried fish is tied to the copper hook for bait, and the fisherman bobs it up and down in the water to attract the fish. The proximal end of the copper hook is beaten out flat to facilitate the attachment of the line, which is spliced around the shank and stitched in place with a small piece of sinew. The line is made of four strands of sinew, braided and spliced, and is kept well-greased with seal-oil to make it more pliable and to prevent freezing while out of the water.

Length of hook, 2 1/2 in.

Length from point to shaft, 1 1/4 in."

17: Merwin--166 (No date) 1915 Copper Eskimo
116, 227

"Fishing is carried on throughout the year by those unable to hunt the seal and caribou. Beside spearing fish, several methods of fishing are employed. The oddest of these is by using a large gaff of antler having two long copper prongs. This is attached to a long pole and lowered through a hole in the ice. Here it is held until the fisherman feels something touch the pole. Then it is quickly drawn up and, if successful, the prongs have caught the fish. In much the same manner a long barbless copper hook and sinew line are used. In this case a few pieces of bone are attached to the hook to serve as lures. A simpler form is a short line with a small hook and a separate lure. With these simple form of fishing tackle it is often possible to secure large amounts of fish."

321 412 tool, and the drill. In our time nearly all these tools had steel or iron blades, and a fifth had been added, a small saw with a blade of hoop iron. Saws were not numerous, however, and it was still a common sight to see a native scoring deep cuts in bone or antler with his grooving tool and then breaking out sections with his adze. The curved whittling knife gave the final shape, and rubbing, first with stone or sand and then with a strip of hide, the smoothness and polish. Musk-ox horn alone was susceptible of a different treatment; to make from it ladles and scoops, the natives split it longitudinally, steamed it over their cooking pots, then opened it out and bent it to shape by simple pressure and hammering.

237 There was current among the Copper Eskimo one other substance similar to the foregoing, baleen, but it was rather scarce, and in the eastern part of the territory almost unknown. Whether it came from stranded whales, or was brought in from the west, I did not discover. The natives used it, apparently, 232 for fishing lines only, lines mainly for catching tomcod during the winter months 229 when the more usual lines of sinew tended to become brittle with encrusted ice. 283 I never saw them cut or split baleen, but doubtless they used the whittling knife for this purpose.

HIDES AND SINEW

237 [433] It is hard for the civilized inhabitant of a warmer country to realize the immense importance of skins in the domestic economy of the Copper Eskimo. They provide him with clothes and bedding throughout both winter and summer, bags in which to store his clothing, a tent for use nearly half the year when a snow-hut was either uncomfortable or impossible, a cover for his kayak, straps and lashings for his sled, harnesses and traces for the dogs, lines and lashings for harpoons and other weapons, packing lines, dog racks, water buckets, poke for meat and blubber, and other articles for which Europeans utilise cloth, rope, or metal. It was, consequently, of the utmost importance to the native that he should know how to treat skins to the best advantage. Fortunately, the two animals on which he depended most for his food, the seal and the caribou, were precisely the ones whose hides were the most useful.

281 [225] *Seal Skins.* The Copper Eskimo had two methods of skinning a seal. They generally made a cut around the base of each flipper, another around the neck, and a third down the belly, after which they separated the skin from the blubber with a knife. As it was impossible to remove all the blubber in this way, the skin was then soaked in warm water. Holding one end in her mouth while the [412] other remained in the pot, the woman (for the work almost invariably fell on [412] the housewife) scraped it thoroughly with her curved knife. As soon as the weather was warm enough she set it out to dry, sometimes on top of the house, sometimes on the ground, sometimes pegged over and around a block of snow.

A sealskin thus dried was roughly oval in shape and still retained the hair [415] on the outside. If you folded in the ends, doubled it over and tied a line to [492] each end, you had the common Copper Eskimo fishing bag; if you laced each end across through the holes by which it was pegged out, you had a dog pack, broad and flat in the middle where it rested on the animal's back, and bag-shaped at each end for holding the meat or clothing. The hair was no 281 disadvantage in such skins; indeed, for raincoats and for spring foot gear it 294 was indispensable, but as the skin was more supple without it, it was generally removed by resoaking in warm water and scraping with a knife. To soften the skin still more, and to change the outer surface from a dark colour to white, it was subjected to further scraping, and, after drying, rubbed between the hands and chewed between the teeth, when odd scraps that came away found lodging in the chewer's stomach. From these creamy white skins were made the sealskin

hardly distinguishable from the antler knife used by the women for chopping snow; but a curving prong in which the point formed nearly an acute angle with the handle made a more efficient tool (Figure 122). 412 321

Figure 122. Curved pick of antler. IV.D.1834. 1/4.

Mattocks were seldom required except for two purposes, to secure, in the autumn, mud for plastering the runners of the sleds, and to make shallow pits where the hunter could await unseen the approaching caribou. Some families had no mattocks, but no hunter's equipment was quite complete unless he carried a short straight one in his bow-case. In fact, the usual name for a mattock was *tallulit*, i.e., a tool for making a *tallu* or hunting pit. 412 224 [493]

Snow Sounder. The main purpose of the snow sounder was to test the depth and compactness of snow with a view to the construction of a snow-hut. Hunters used it occasionally to probe the breathing holes of seals. 412 [342]

The implement was a straight, slender rod of antler[1] roughly 3 feet long, usually shod at the bottom with a peg of bone or musk-ox horn. The handle, of bone or musk-ox horn also, nearly always took the form of a round button drilled to fit the top of the rod (Figure 123). Figure 124, however, shows a specimen with a more elaborate handle. [321]

FISHING EQUIPMENT

Copper Eskimo methods of fishing have been described in Reports of the Canadian Arctic Expedition, 1913-18, vol. XII, pages 152-157. 226 113

Rods, Hooks, and Lines. There were two types of fishing rods. The first was a short stick from a foot to 18 inches long, curved at one end to form a handle, and notched at both ends to wind up the line. The Eskimo often had some difficulty in securing suitable wood for this kind of rod, wood that would bend without cracking. Hence, they frequently spliced two pieces of wood together, or a stick of wood to a handle of antler; or they even made the rod entirely of antler. With dry wood, too, the notches were very liable to break, 227 322

[1] Stefansson obtained a very unusual rod of solid copper (Jenness, Figure, Am. Mus. Nat. Hist., vol. XIV, fig. 4, p. 80 (New York, 1916)). [113]

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especially the lower arm of the front notch, which carried the weight of the line; consequently, this notch was often built up by splicing a short projecting piece of wood to the under side of the rod. Sometimes a bone pin was inserted about the middle of the rod, on its upper surface, for shortening the line a little; for in shallow lakes the line was lowered until it touched the bottom, then raised a few inches with a turn around this pin, and fastened with a half hitch to the lower arm of the front notch.

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The second type of fishing rod was simply a straight stick also notched at each end. Usually it was a little longer than the curved variety and was especially favoured for cod fishing, though no great distinction was made between the two kinds.

Both types of rod, with all their attachments, are shown in Figures 125 and 126.

Capt J. Bernard discovered an ancient rod of antler (Figure 127) in an old stone house on Bell Island, off the southwest coast of Victoria Island. It closely resembles Copper Eskimo specimens, though the house itself must date from the earlier Thule culture. I do not know the purpose of the holes drilled in each end.

The common line for these rods was a stout 3-ply cord, plaited from caribou leg sinew. It varied greatly in length, but generally ran from 35 to 60 feet. The upper end was fastened in different ways, sometimes with a few half hitches around the front of the rod, sometimes by a knot at the back end; the lower end was attached to the sinker, not to the hook, because the sinker and hook were riveted together.

For tomcod fishing in winter the western Copper Eskimo preferred a line of baleen to a sinew line, because the latter became encrusted with ice and was easily broken. These baleen lines, which could be quite short, were naturally commonest around Dolphin and Union Strait; natives farther east, who seldom or never saw a stranded whale, obtained them only by trade.

The sinkers were of bone, antler, or musk-ox horn, most often the first two. There were two types, one for use with a comparatively small hook when fishing in the lakes for trout and salmon, the other for use with a very much longer hook for catching cod.

The former type of sinker was usually from 1 to 2 inches long, oval in outline, flat on one face and rounded on the other. Most of them had two holes drilled through the upper end, one below the other. The end of the line then passed twice through both holes, forming a double-stranded noose, and was plaited back an inch or two from the sinker, where it was bound occasionally

Figure 123. Snow rounder. IV.D.1086. 1/4.

Figure 124. Snow rounder with unusual handle of musk-ox horn. IV.D.114. 1/4.

with fine willow bark; many a careless fisherman, however, instead of splicing it, simply fastened it down by two or three half hitches. The same method of fastening the line was adopted when the sinker had only one hole.

The bottom of the sinker was nearly always grooved to fit the end of the hook; and often a small hole was drilled beside this groove to tie on the bait. The hook was originally of copper, but by 1914 most of the natives were using an iron hook beaten out in the same manner as the old copper one (Figure 128). Generally, it was flattened at the upper end and riveted, but occasionally it passed through a hole in the sinker and was pegged to its back (Figure 129). Iron hooks were often driven directly into the bottom of the sinker without riveting. There was never any barb, and the hook seemed extraordinarily large for the size of the fish; but it was never intended to be swallowed, as the fish was jagged in the mouth as soon as it nibbled at the bait.

The bait was usually a strip of skin and flesh from the belly of the fish, or sometimes its œsophagus. After being pushed onto the hook it was lashed to the sinker with a thread of sinew.

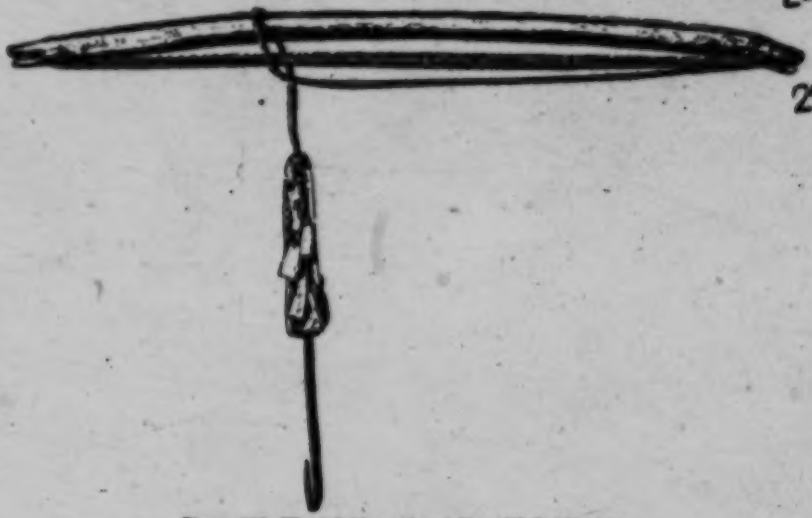

Figure 128. Wood fishing rod and line. IV.D.187. 1/4.

The sinker for cod was made from the same materials as the sinker used in lake fishing, but was generally much longer. The hook was also much longer, varying from 5 to 9 inches; but both it and the line were attached in the same manner. As no bait was used, there was no small hole at the bottom for its attachment; but three or four lures of bone or teeth, sometimes neatly shaped, were fastened at intervals to the under surface of the sinker by means of holes and sinew lashings (*See* Figure 125). Some common forms of these lures are shown in Figure 130. Often the natives dispensed with a hook altogether and used spears and a larger lure, made from a bear's tooth strung with smaller teeth or with gleaming fragments of bone that fluttered like fins in the water (Figure 131). Indeed, they caught more toneod with their spears

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Figure 128. Fishing rods and lines. Approx. 1/2.

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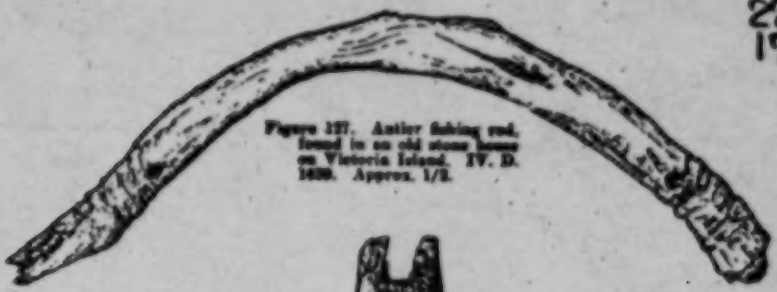

Figure 127. Antler fishing rod, found in an old stone house on Victoria Island. IV. D. 1630. Approx. 1/2.

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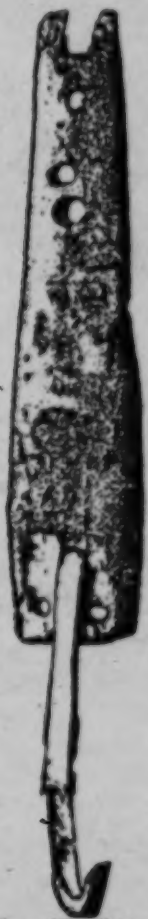

Figure 128. Iron fish-hook set in bone. IV.D.1655. Slightly more than 1/1.

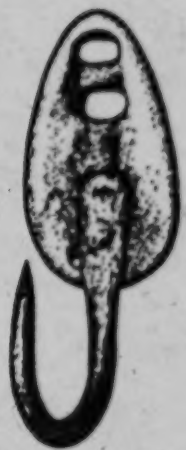

Figure 129. Copper fish-hook set in bone. IV.D.603. Slightly more than 1/1.

Figure 130. Bone lures used on tomcod fishing lines. IV.D.377. 1/1.

Indeed, they caught more tomcod with their spears during the winter months than with hooks. The Copper Eskimo never employed the artificial baits of stone or ivory, carved into the shape of fish, that were current among the Eskimo to the westward.

Figure 131. Lure of polar bear's tooth. IV.D.798. 3/2.

Gorges. Women, rarely men, caught a few trout and salmon with the gorge, which was merely a pointed bone wrapped inside the body of any small fish and attached by a line to the shore. Figure 132 is copied from a rough field sketch of a gorge used by a woman on Victoria Island. It was about 6 inches long, made from a splinter of caribou leg bone, and not distinguishable in any way from the needle used for stringing the salmon that were caught in weirs. I never saw a double-pointed gorge.

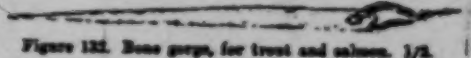

Figure 132. Bone gorge, for trout and salmon. 1/2.

Needles for Stringing Fish. Most needles used for stringing salmon at weirs were roughly shaped splinters of caribou leg bone (Figure 133), but in

one needle, 8 inches long, the splinter was mounted in a wooden handle. The line was of sealskin, generally closed at the far end with a stick of bone, antler, or wood to prevent the fish from slipping off.

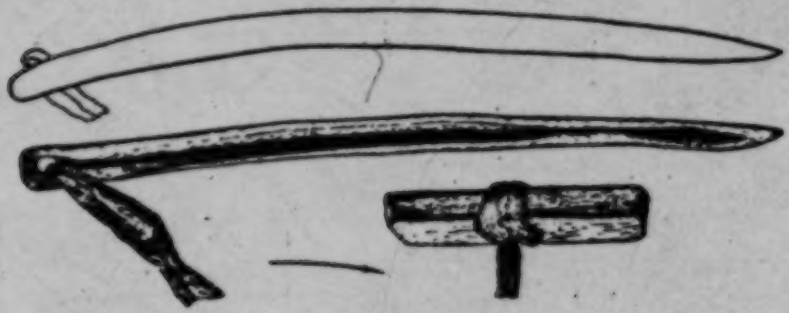

Figure 133. Bone needle for stringing fish. IV.D.681. Approx. 2/3.

Fish Bags. To pack their fish to camp the Eskimo used a bag of sealskin, commonly made by folding in the ends of a whole skin, doubling it over and tying a line to each end. The same bag, laced across, served as a dog-pack.

Fish Spears. Two varieties of fish spear were employed, the trident and the leister. The leister was preferred for spearing trout and salmon in lakes when they came to nibble at the lure, the trident for the migrating salmon that entered the weirs across streams; but generally a man used whichever weapon happened to be nearest at hand.

The shape of the leister is best seen from the illustration (Figure 134a). The handle was simply a long pole, split at the end to receive a barbed, occasionally barbless, point of antler, which was held in place with a lashing of sealskin, or more rarely of sinew. Two prongs facing each other, which sprang open on striking the fish, were invariably of copper or iron, copper, of course, being the original material; they were driven like nails into antler heads, which were bevelled off at the lower ends to fit corresponding ends on wooden extensions. Antler and wood were spliced with sealskin lashing, strengthened at times by bone or antler nails. The wooden extensions were then bevelled off in the same manner and lashed to the shaft, but not nailed, as low ridges at their tips prevented the lashings from slipping off. All these lashings quickly dried up from disuse, and the parts fell asunder except where they were held together by pegs. In a few leisters the side pieces were entirely of antler, not of antler and wood combined.

The trident (Figure 134b) resembled the leister, but had no prongs on the side pieces, which were made entirely of antler, pointed and barbed like the point in the middle. The number of barbs varied; in some cases they were directly opposite, in others staggered, both arrangements occurring at times on the same weapon.

Double-pointed spears were sometimes improvised for stabbing sculpins, or the small fish that hide under the stones on the margins of lakes. I have seen two sharpened pieces of bone, and even a European fork, lashed to the end of a walking-stick for this purpose. Naturally, they were dismantled again as soon as the need for them passed.

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227 *Fish Rakes.* The fish rake was employed at the foot of a few cascades where the salmon congregated in such numbers that no art was required for their capture.

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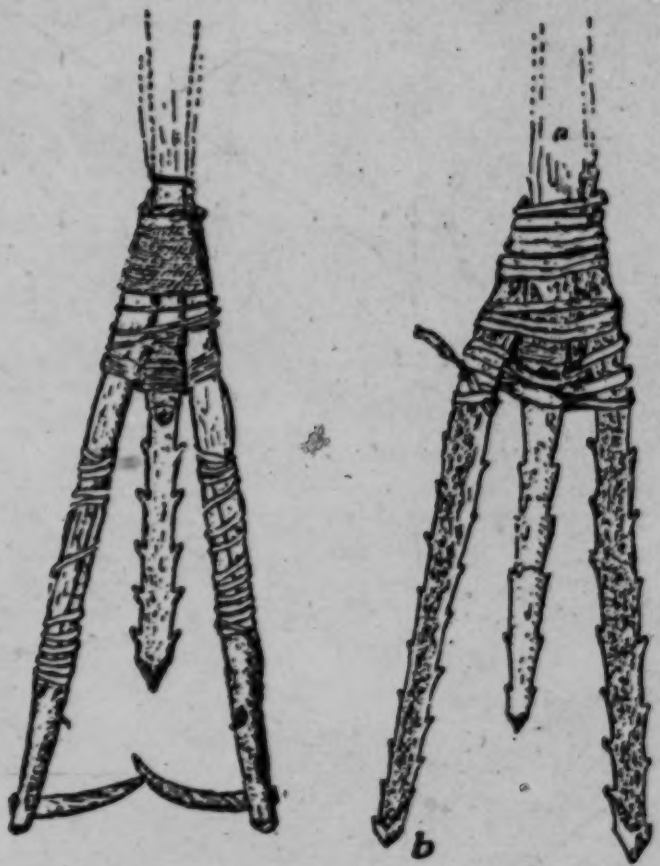

Figure 134. a, knife, IV.D.117; b, trident, IV.D.121. 1/2.

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227 Hearne, the first traveller to observe it, described its use as follows:

"The salmon at Bloody Fall, on the Coppermine river, were so numerous that when a light pole armed with a few spikes, which was the instrument the old woman used, was put under water and hauled up with a jerk, it was scarcely possible to miss them. Some of my Indians tried the method, for curiosity, with the old woman's staff, and seldom got less than two at a jerk, sometimes three or four."[1]

[1] Hearne, op. cit., p. 102.

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The implement consisted of two long copper hooks driven through a piece 321
of antler at the end of a pole 4 or 6 yards in length (Figure 135). The antler, 325
bevelled off in the usual manner, was pegged to the shaft with bone or antler pins, and occasionally further secured by a sealskin lashing. The majority of

Figure 133. Fish rake with two copper prongs.
IV.D.431. 1/3.

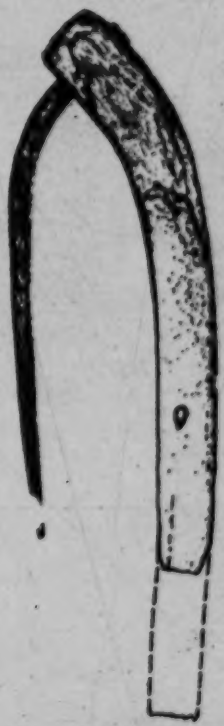

Figure 136. Fish rake with one copper prong.
IV.D.862. 1/2.

Figure 137. Ice chisel, of copper set in antler.
IV.D.1288. 1/4.

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rakes had two hooks from 6 to 9 inches long, but a few had three hooks and others only one (Figure 136). Wedges of bone, antler, or copper were sometimes used to prevent the hook from pulling out.

Ice Chisels. Figure 137 shows a typical chisel used to drill through ice for fishing, or to obtain drinking water. The blade is of copper, oblong in section, and bevelled to an edge on one of its narrower faces. The fore-piece is of

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